

South Carolina Energy Office Annual Report Fiscal Year 2004

**Prepared by the South Carolina Energy Office
State Budget and Control Board
For Submission to the
South Carolina Energy Advisory Committee**



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Annual Report for the South Carolina Energy Office Fiscal Year 2004

A. Facilities

The South Carolina Energy Office promotes energy efficiency in government agencies and public schools by encouraging them to measure their energy use, analyze their building envelopes and mechanical systems, incorporate energy improvements into their master plans, and implement energy-saving measures. In addition, the SCEO provides grants and loans to encourage installation of energy efficient equipment and capital improvements in state agencies.

ConserFund: SCEO's ConserFund loan program finances energy cost saving improvements in state agencies and other public buildings. In fiscal year 2004, SCEO committed \$3.9 million to finance nine energy conservation projects for three state agencies, one school district, and one local government. An ongoing, proactive marketing strategy for the ConserFund loan program resulted in a loan commitment total that increased 25 percent over the previous fiscal year. Taxpayers will save \$22.9 million in energy costs over the lifetime of the 25 ConserFund projects SCEO had financed through the end of FY04.

ConserFund Loan Program Loan Commitments for FY 04

- Division of General Services (2)
- Cherokee County School District (2)
- University of South Carolina (2)
- Winthrop University (2)
- Charleston Area Regional Transportation Authority

SCEO has assisted borrowers in financing an array of different energy conservation measures such as: implementing or upgrading energy management and control systems; modifying or installing heating ventilation and air conditioning systems; lighting retrofits; light switch reconfigurations; replacing and installing chillers; installing air handlers and heat reclaim units; and other energy cost-savings improvements. As loans are repaid, the funds are recycled through a revolving loan fund and continue to finance new energy savings opportunities for taxpayer-supported facilities.

School Energy Efficiency Projects Completed in FY04

- Florence School District 3
- Sumter School District 2
- Orangeburg School District 3
- Dillon School District 1
- Bamberg School District 1
- Florence School District 4
- Greenwood School District 51
- Dillon School District 3
- Marion School District 7

School Energy Efficiency Improvement Grants: This grant program assists the state's poorest school districts with lighting efficiency retrofits and other energy efficiency improvements. Nine grants were completed in FY04. These grants will save taxpayers almost \$1.2 million in life-cycle costs. Since 2000, 25 school districts have been awarded \$2.9 million in energy efficiency grants. Life cycle energy cost savings from program grants will save millions of dollars for school districts as well as improve lighting quality in numerous classrooms that were below building code requirements.

Energy Consumption Report: The Energy Office entered into a partnership with SchoolDude.com to provide a web-based energy accounting system to the State of South Carolina. This system, called Utility Direct, will replace the FASER software system, which will be discontinued in 2005. Utility Direct provides public entities with a convenient and powerful tool for tracking their energy costs and usage. Public facility managers are able to monitor and analyze their utility expenditures in order to identify problems and savings opportunities. It also simplifies preparation of required annual energy consumption reports, since the Energy Office can access the utility data online. Through an intensive marketing campaign and several regional seminars and online demonstrations, the

Energy Office enrolled 57 entities, including 29 school districts, 13 state agencies, and 15 universities and colleges in this new web-based energy accounting system. Utility Direct, along with FASER and other sources, facilitated the collection of energy consumption and cost data from 154 public school districts, state agencies, and public colleges and universities in FY04. Approximately 4,725 buildings and lighting systems were monitored through this data collection effort, with a total response rate of 97 percent of institutions reporting.

The *Twelfth Annual Report on Energy Use in South Carolina's Public Facilities* was published and distributed to respondents, along with individual analyses for each organization. This information provides baselines and measurements for taxpayer-funded entities to save energy dollars. In fiscal year 2004, public facilities spent \$185.5 million on energy. In comparison with fiscal year 1998 consumption rates, this figure represents a savings of \$4.4 million through energy efficiency.

Higher Education Rewards Program: Through the Rewards for Higher Education Energy Efficiency Projects (RHEEEP) program, which provides incentives for energy conservation in colleges and universities, SCEO awarded \$98,256 in grants, up from \$16,000 in the previous fiscal year. The grant money was distributed to The Citadel, Clemson University, Medical University of South Carolina, Greenville Technical College, and Piedmont Technical College. Through previously awarded grants, The Citadel implemented lighting retrofits at Deas Hall and Summerall Chapel, and Medical University of South Carolina received RHEEEP funding approval on a project to install oxygen trim and computerized sequencing for three 800 HP boilers. In total, SCEO has awarded 16 RHEEEP grants to 11 institutions over the past four years.

2000-2004 Institutions Awarded RHEEEP Grants

- Clemson University (3)
- Medical University of South Carolina (2)
- SC State University
- USC - Columbia
- USC - Upstate
- USC - Beaufort
- The Citadel (3)
- Lander University
- Coastal Carolina University
- Greenville Technical College
- Piedmont Technical College

Technical Workshops: Five technical workshops were conducted by the SCEO and attended by 174 facility managers, engineers, and contractors. Topics covered included steam plant improvement, HVAC plant improvements, and engineering fundamentals. The SCEO also assisted the South Carolina Association of Heating and Air Conditioning Contractors to provide training for 280 contractors in duct design and installation. In addition, SCEO staff helped coordinate two state facilities association conferences, through the Association of South Carolina Energy Managers (ASCEM), a professional development organization for public sector energy managers.

Design Charrettes: This year, three design charrettes (workshops) were facilitated under grants provided by the U.S. Department of Energy and administered by SCEO. A design charrette was held to assist Imagine Nation, the Children's Museum of the Upstate, in the sustainable design of the museum building renovation. Additionally, the York Technical College charrette brought together local and regional leaders and green design and construction experts to determine strategies to reach their goal of constructing a "Green Building" Technology Center in the Chester community. Lastly, the University of South Carolina-Beaufort charrette brought together a diverse group of local, state, and regional stakeholders to identify and discuss a wide range of sustainable design options for potential incorporation into the South Campus project.

Leadership in Energy and Environmental Design Building Program: During FY04, the SCEO was an integral part in implementing the Leadership in Energy and Environmental Design (LEED) program throughout the state. Developed and implemented by the US Green Building Council (USGBC), LEED provides a framework for assessing building performance and meeting sustainability goals. In December 2003, the SCEO co-sponsored a LEED Intermediate Workshop in which 74 attendees learned USGBC principles for LEED

accreditation and certification. Currently there are two certified LEED projects, 21 projects being reviewed for LEED certification, and 65 LEED Accredited Professionals in South Carolina.

EarthCraft House: SCEO partnered with the Home Builders Association of Greenville, Charleston Trident Home Builders Association, and Southface Energy Institute to pilot the EarthCraft house program for the Greenville and Charleston areas. Six builders in Greenville have committed to building EarthCraft certified homes and ten homes will be built in the Charleston area. The EarthCraft House program has quickly become one of the fastest growing and most comprehensive green building programs in the country. The EarthCraft House mission is to educate builders in environmentally responsible building practices and to provide a standard for certifying the homes they build. The program is a blueprint for healthy, comfortable, affordable homes that cut energy and water bills and protect the environment.

Industries of the Future: The SC Energy Office received two special project grant awards from the US Department of Energy to promote energy efficiency in industry. SCEO's project partner, the SC Manufacturing Extension Partnership (SCMEP), is using \$278,000 in federal funds and \$88,000 from private sources to implement the Industries of the Future programs. One of the grants focuses efforts on encouraging metalcasting companies in South Carolina to implement improvements in their productivity, making them more profitable and decreasing their energy waste, raw materials waste, and pollutants. The other grant serves as a platform for the SCMEP to make use of existing best practices and technologies that have been developed as part of the Department of Energy's Energy Efficiency and Renewable Energy Program while also developing new practices, which can be replicated across other industries.

Energy Audits: SCEO provided Level II energy audits for one commercial and ten industrial facilities. Level II energy audits provided by the Energy Office are walk-through energy assessments of building energy costs and efficiency, which identify recommendations for savings, cost analysis, and any operation and maintenance needs. Recommended measures for the eleven Level II audits would generate \$132,800 in annual savings if implemented. Also, the SCEO provided Level III energy audits for four state government, one non-profit, and six public school facilities. Level III audits provide a comprehensive, detailed technical analysis and identify detailed project cost and savings information for an institution. Recommended measures from these eleven audits would generate about \$290,000 in annual energy savings if implemented.

FY04 Energy Audits

- Criminal Justice Academy
- Monarch Elementary School
- Union High School
- Forest Park Elementary School
- Clemson Sandhills (2)
- GLEAMNS Human Resource Commission Inc.
- Department of Juvenile Justice
- Hampton Street School
- Colleton County High School
- St. George Middle School
- Industrial (10)
- Commercial (1)

Manufactured Housing Energy Efficiency: As part of a program to certify that new manufactured homes meet state-required energy efficiency levels, SCEO distributes energy efficiency labels to dealers in South Carolina. In FY04, the SCEO distributed 1,890 labels, with 42,000 distributed since 1998. The total annual savings for citizens living in these SCEO-certified energy efficient homes is well over \$9 million. The SCEO maintains a database of all energy efficient manufactured housing labels issued, and also offers additional energy-saving advice to interested homeowners.

Community Service Facilities Initiative: SCEO continued support for its low-budget grant program for energy efficiency improvements to community service facilities in low-income areas of the state. The program is designed to address special situations where energy costs create budget hardships that threaten the delivery of community services. Work continued on a \$50,000 grant to the Gibbes Community Center in Pamplico for windows and HVAC improvements to a former school building now being used for senior citizen and after-school activities.

B. Renewable Energy Resources

The SC Energy Office works to promote the use of renewable energies and sustainable development practices throughout the state to offset and replace traditional methods of energy generation and consumption and to mitigate environmental degradation and the loss of economic investment. For example, the office received funding this past year from the Department of Energy for a detailed wind study of the entire state of South Carolina, including the area up to 20 miles offshore, to identify the areas that have the highest potential for wind power development. Renewable technologies such as solar, biomass, wind, hydrogen, and geothermal energy sources can help South Carolina depend less and spend less on imported energy while improving the state's environment.

Landfill Gas to Energy Projects: Concentrated efforts on Landfill Gas to Energy (LFGTE) projects have resulted in significant energy and environmental benefits for our state. BMW won the 2003 Governor's Pollution Prevention Award for its LFGTE project at the Palmetto/BMW landfill. The SCEO played a key role in this project, and the methane gas produced by the landfill will satisfy approximately 25 percent of the BMW facility's energy needs over the next 20 years. In addition, construction is underway on projects involving the Lee County Landfill and the Anderson Regional Landfill. Currently, the SCEO has signed a new agreement with Allied Waste and Santee Cooper for the Richland Northeast Landfill, and four other LFGTE projects are in the negotiation stages.

Operational and Proposed LFGTE Projects

- Horry County (10/25/01)
- Palmetto Landfill (4/30/03)
- Screaming Eagle (2005)
- Lee County Landfill (2004)
- Oak Ridge Landfill (2005)
- Anderson Regional Landfill (2005)
- Hickory Hill Landfill (2005)

Solar Technology: The SCEO is continuing its support of the US Department of Energy's Million Solar Roofs (MSR) Initiative, which aims to install one million solar systems across the United States by 2010. During FY04, the SCEO received a grant of \$46,800 to carry out Phase II activities as part of their support for the MSR Initiative in South Carolina. Additionally, a comprehensive inventory of solar installations in South Carolina was developed, including four new solar installations that were certified in FY04. The SCEO also published and distributed both the MSR Winter Newsletter and the first SC MSR brochure.

In FY04, the SCEO launched the Public Building Solar Initiative to demonstrate the technical and economic efficiencies of solar water heating in public facilities. State agencies, public colleges, universities, and public school districts were eligible to apply. Through this pilot, two awards were made: \$25,000 to the University of South Carolina - Aiken, for installation of a solar water heating system for an indoor swimming pool and \$25,000 to The Citadel, for installation of a solar water heating system at Dunnemann Apartments.

Biomass Renewable Energy: The SCEO has proactively coordinated biomass projects and educated the public on the benefits of this plentiful renewable energy source in FY04. SCEO staff developed and posted online an inventory of biomass energy users and biomass energy resource producers. Additional involvement has been through projects funded by the US Department of Energy and the Southeast Biomass State and Regional Partnership (SEBSRP), administered by the Southern States Energy Board.

Federal funding in the amount of \$57,010 was used for "Biomass Lesson Plans for Middle and High School Teachers," a week-long workshop coordinated by the SC Farm Bureau for teachers in South Carolina. The final report was completed and approved for the South Carolina Soybean Board's "Feasibility Study for Biodiesel Production in South Carolina." This study analyzed the economic viability of establishing a biodiesel

production plant near the Carolina Soya facility in Estill. In addition, the SCEO received a federal award of \$25,965 for the development of a Comprehensive Biomass Assessment for South Carolina, and submitted a successful application for \$80,000 in federal funds to develop markets for biomass energy.

Green Power: The SCEO continued to be a leader in the Southeast Green Power Network, a collaboration among Southeastern state energy offices, the Florida Solar Energy Center, and the Southern Alliance for Clean Energy, working to ensure there is a market for renewable energy. Through the Network, the Energy Office helped organize and conduct the second annual Southeast Green Power Summit in Atlanta. This summit was attended by over a hundred participants from both the public and private sectors.



SC Hydrogen Coalition: The SCEO continued its participation in the South Carolina Hydrogen Coalition partnership, which was founded to promote hydrogen based energy such as fuel cells. The partnership consists of representatives from the SC Department of Commerce, University of South Carolina, Clemson University and other public and private sector entities.

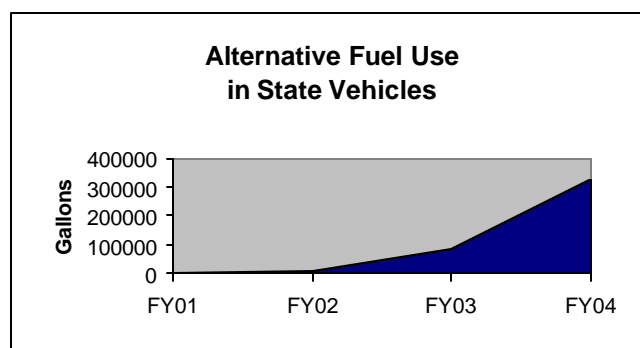
C. Transportation

The transportation sector consists of private and public vehicles that move people and commodities, including automobiles, trucks, buses, motorcycles, railways, aircraft, ships and barges. The transportation sector accounts for 23.4 percent of all energy used in South Carolina, and 44 percent of its air pollution (53 percent of nitrous oxides, 24 percent of volatile organic compounds, 32 percent of carbon dioxide, and 70 percent of carbon monoxide). Use of alternative fuels not only improves air quality, but also develops markets for domestically produced fuels.

Palmetto State Clean Fuels Coalition: The Palmetto State Clean Fuels Coalition (PSCFC), a South Carolina Energy Office sponsored group of public and private sector groups dedicated to the advancement of alternative fuels and vehicles, was awarded the prestigious Clean City designation by the U.S. Department of Energy's National Clean Cities Program. This designation is formal recognition of all the Coalition has done to deploy alternative fuels and alternative fuel vehicles throughout its nine-county region. The PSCFC's official designation event, held on January 28, 2004 in Columbia, was attended by 70 stakeholders from the Aiken, Columbia, and Rock Hill Metro areas. Through formal designation into the Clean Cities Program, the PSCFC can compete for federal grant funds to support alternative fuel activities.

Alternative Fuel Vehicles: Through the efforts of the PSCFC, 1,232 Alternative Fuel Vehicles (AFV's) in government and private fleets are using alternative fuel 100 percent of the time in the PSCFC service area. Through 2008, stakeholders representing both government and private businesses have committed to add over 2,000 operational alternative fuel vehicles to South Carolina's roads.

In FY04, 328,570 gallons of alternative fuel were used by state fleets, up 400 percent from the previous fiscal year. Additionally, the SCEO submitted successful grant applications to the US Department of Energy to fund ethanol fuel infrastructure at the University of South Carolina (\$23,030), conversion of 11 trucks to propane (\$37,505), and biofuels storage and distribution in Aiken County (\$150,000).



Take a Break from the Exhaust: The SCEO also partnered with the Department of Health and Environmental Control (DHEC) to promote the Take a Break from the Exhaust (TABFTE) program which won the Governor's

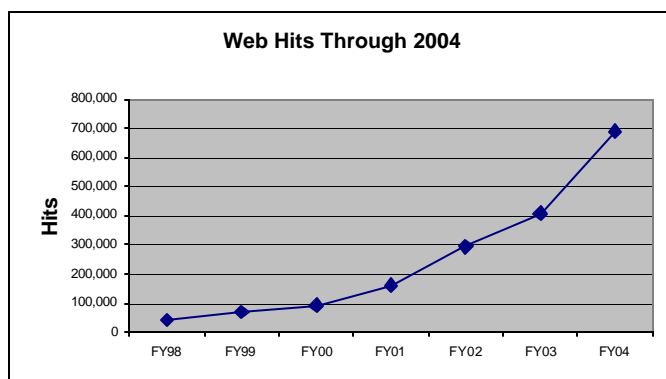
Pollution Prevention Award in 2003. DHEC piloted this project within the Bureau of Air Quality, complementing their existing telecommuting program. The TABFTE project was developed with the idea of offering a variety of options for staff to participate during the ground-level ozone (smog) season which runs from April to September. The program encouraged the use of mass transit, bicycling, walking, and other commuter options whenever practical. Data was collected through a web-based electronic survey, where staff could provide answers to questions concerning their commute to and from work. Because the program is web-based, other state agencies and private sector companies who are interested in using it can access it from the internet at no cost.

The environmental impacts of the TABFTE pilot project resulted in a greater than 8 percent reduction in air pollutants of concern as a result of vehicle miles not traveled. Specific pollutant reductions were approximately 172 pounds of NO_x, 333 pounds of VOCs, and 2,626 pounds of CO. This project is being continued by DHEC staff, and data collection by the TABFTE program administrator has demonstrated that over 100,000 miles of travel were avoided.

Truckstop Electrification: The SCEO received \$1.5 million in competitive federal grant funding for its proposal to install IdleAire Technologies Corporation's Advanced Travel Center Electrification (ATE) system in 150 truck parking spaces at three truckstops along the I-85 corridor in South Carolina, North Carolina, and Georgia. ATE systems provide heating, cooling, and communication services to the drivers, eliminating the need to idle trucks on diesel fuel. Funding for this project comes from the National Association of State Energy Offices and the State Technology Advancement Collaborative (NASEO/STAC), with a cost share of \$1.9 million provided by IdleAire. Each truckstop will provide approximately 50 truck parking spaces equipped with the electrification technology and will remove approximately 1,647 metric tons of emissions annually, including 33.47 metric tons of NO_x and 0.66 metric tons of particulate matter (PM₁₀). Fuel saved at the three locations is expected to be nearly 2.4 million gallons annually, worth about \$3.7 million.

D. Public Information

Distribution of information plays an integral part in achieving the goals of awareness and education in the community. The SCEO reaches a variety of audiences in the state through its web site, newsletter, marketing materials, information distributed through the news media, and attendance at community events.



SCEO Web Site: Since its inception in 1997, the SCEO web site has provided information to the public on SCEO programs and helped to educate consumers on how to save on energy costs. With natural gas and gasoline rates spiking, the web site experienced heavy traffic for FY04. More than 680,000 people visited the site, up from 400,000 the previous year. Our content has grown to 432 pages covering a range of conservation, efficiency, renewable energy, education, data, and other energy-related topics.

Energy Forecasting: SCEO requested proposals through the state procurement RFP process for a comprehensive energy forecast dataset, software, and model. The forecast model and software will allow staff to conduct energy forecasts and comprehensive assessments of the opportunities and constraints for all types of energy production and usage within South Carolina. Global Insight, an economic and financial forecasting company, won the award for the contract and will deliver the model in May 2005.

Energy Use Profile: The 2003 *Energy Use Profile Highlights* report was completed for online publication. This report focused on the highlights of the full *South Carolina Energy Use Profile* publication, a very detailed and comprehensive source of the latest information containing nearly 100 graphs, charts, tables and summaries covering energy use, energy prices and expenditures. This report helps fulfill the South Carolina Energy Office's objective of providing readily accessible energy data to the general public and policy makers in South Carolina. It is distributed to every school, college and public library in South Carolina. A regularly updated version is located on the SCEO web site, and a new version of the full report will be completed within the next fiscal year.

Utility Price Data Survey: All electricity providers in the state were surveyed for both commercial/industrial and residential utility prices. For the second year in a row, SCEO received responses from 100 percent of the utilities in both the residential and commercial/industrial surveys. Information is compiled and placed on the web site for consumers to compare utility costs and other data pertaining to the state's 45 electricity retailers. Currently, the SCEO's web site is the only provider of a comprehensive listing of South Carolina electric utility prices.

Other Public Information Activities:

The SC Energy Office conducted the following in FY04:

- Facilitated the training of 1,109 teachers in energy lessons from the Action for a Cleaner Tomorrow curriculum. These teachers represent 80 school districts and 42 counties.
- Participated in 3 America Recycles Day events, speaking to approximately 400 elementary age children.
- Administered one session of Earth Camp, in which 57 rising 5th and 6th grade South Carolina students participated after going through a nomination and interview process. Earth Camp is an environmental camp that shows students the importance of energy conservation, recycling, forest stewardship, and clean air and water. Through pre- and post-testing, campers' knowledge of energy increased by 79 percent.
- Answered over 725 information requests from the public, including sending out 135 copies of *Passive Solar Home Designs for South Carolina*.

Action for a Cleaner Tomorrow Counties in SC



Earth Today Wins an Emmy

"Earth Today" was named the winner of the 2004 Emmy in the Excellence in Television, Youth Programming category by the Academy of Television Arts and Sciences. Sponsored by SCEO, DHEC, the U.S. Environmental Protection Agency, and Palmetto Pride, the half-hour program aired nationwide again this year on Earth Day. The show features student anchors and reporters in a network morning news format, and provides segments on a variety of environmental issues including energy conservation, air and water quality, recycling and litter prevention.

- Participated in Home Shows to showcase energy-saving techniques and technology for the residential sector in Columbia, Greenville, and Charleston. Answered questions from 1,563 attendees, and distributed more than 15,000 pieces of literature. Also gave away door prizes of 36 compact fluorescent energy efficient light bulbs in three drawings each day. Of the home show attendees we spoke to, 94 percent took information home and 39 percent said their home's energy efficiency increased upon implementing suggested changes.
- Participated in 3 Earth Day events, directly interacting with more than 250 people.
- Initiated production of a 30 minute educational video, "Energy Tonight," modeled after the popular "Entertainment Tonight" program. This video will supplement the Energy Office's in-class 6th grade presentation program, E2IQ, with information on energy

use and production in South Carolina.

- Facilitated the construction of a three-story Energy Tower for the EdVenture Children's Museum, which opened this year. This permanent, outdoor exhibit showcases solar energy, wind energy, the energy savings of recycling, a comparison of incandescent and compact fluorescent light bulbs, renewable and non-renewable energy, and tools to measure weather conditions.
- Produced an Energy Activity Book, a coloring, game, and puzzle book for pre-school through elementary grade children.
- Offered a free, full-day Energy 2 Learn workshop, in which 145 teachers were instructed on energy issues. Subjects included showing teachers how to give solar lessons from the Action for a Cleaner Tomorrow Curriculum, hybrid cars and AFV's, radioactive solid waste disposal, and landfill gas to energy. Pre- and post-test results showed the teachers' energy knowledge increased by 15 percent over the course of the day.
- Promoted energy awareness and conservation to school children in 104 classrooms/events, and promoted energy conservation in 8 community events.

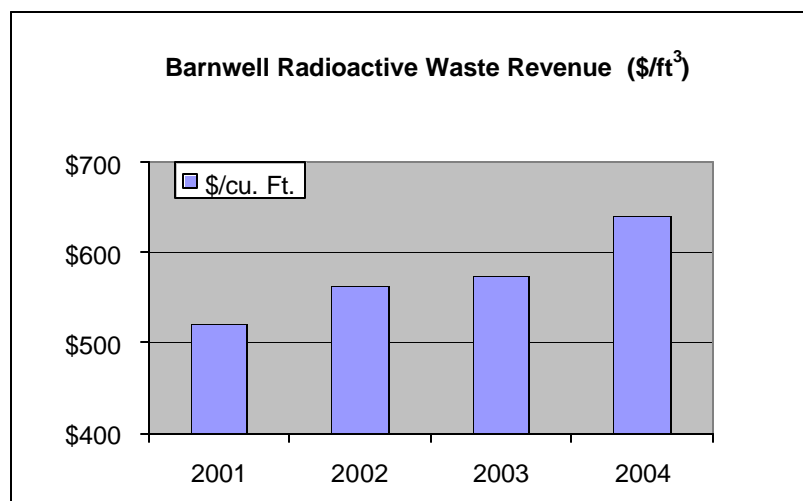
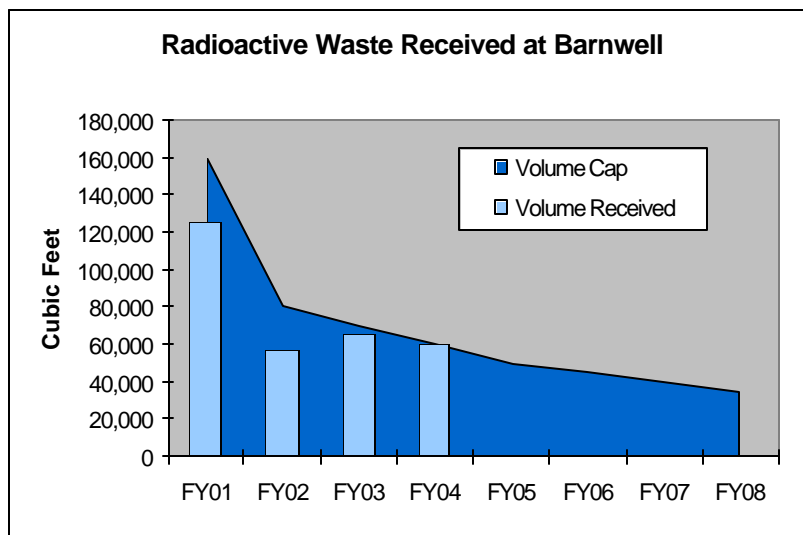
E. Radioactive Waste Disposal Program

Maximizing state revenues from waste disposal: The Radioactive Waste Disposal Program (RWDP) continued to reduce the volume of radioactive waste accepted at the Barnwell site in accordance with state law, while maximizing the dollars received for each shipment. Money received for radioactive waste disposal at the state-owned Barnwell facility is earmarked for higher education scholarships, school construction, Barnwell County needs, and for rebates to South Carolina companies that use the disposal site. Program staff maintained frequent direct contact with customers of the Barnwell site and consulted regularly with management of the disposal site operator.

Disposal revenues are highly dependent on an evolving waste processing and disposal market, as well as state law that annually decreases the amount of waste that can be received at Barnwell.

In FY04, the volume of waste received was reduced to 59,500 cubic feet, 5,700 cubic feet less than last year, as a result of the legally-mandated volume cap. Nevertheless, revenues increased to \$40 million, up \$2.5 million from last year. As volumes have decreased, the Energy Office has been successful in achieving higher revenues per cubic foot of space utilized, thus mitigating the financial effect of lower disposal volumes. From FY01 to FY04, revenue per cubic foot increased 22.6%, from \$522 to \$640.

Approximately \$23 million of this year's disposal revenues are earmarked for the higher education scholarship fund and the



school building fund. Two million dollars of each year's revenues are transferred to Barnwell County government.

At year's end, the RWDP had established disposal agreements reserving 94,000 cubic feet of the 170,000 cubic feet of disposal capacity available under state law for fiscal years 2005 through 2008. With another 40,000 cubic feet set aside for Atlantic Compact regional generators, this leaves 36,000 cubic feet of disposal capacity available for sale to other customers. Reserving disposal capacity at firm prices through multi-year commitments with customers reduces uncertainty in revenue projections from year to year and provides a buffer against fluctuations in the disposal market.

Analyzing facility operating costs: In presenting its operating costs for FY04 to the Public Service Commission, the disposal facility operator for the first time used revised accounting categories that resulted from the report of a collaborative working group that had been initiated by the RWDP during the previous year. The new method of reporting operating costs divides them into fixed costs, variable costs and irregular costs. The classification of costs in this manner makes it easier to evaluate costs in each category and to identify fluctuations from one year to another. This simplification of the accounting categories is expected to result in continued savings in litigation costs and improved communications among the parties to the PSC's allowable cost proceedings.

Projecting Barnwell extended care costs: During FY04, the RWDP performed calculations to update long-term funding needs to monitor and maintain the Barnwell site after it closes. A contractor's report the previous fiscal year indicated that – based on expenses, interest earned, and inflation – a balance of \$70 million would need to be deposited on July 1, 2002 in order to fully fund all custodial care expenses of the Barnwell site through the 140-year institutional control period. Because the balance of the fund currently is only \$24 million, which yields much smaller interest earnings than would \$70 million, the target balance should have been \$80.6 million on July 1, 2004 in order to make up for interest lost due to the inadequate fund balance. Each year that the fund is below the target amount for that particular year increases the target amount needed in subsequent years, due to lost interest earnings.

Supporting Barnwell County economic development: The Radioactive Waste Disposal Program worked with Barnwell County Council to prepare recommendations to the Budget and Control Board for disbursements from the Barnwell Economic Development Fund. The fund was established with an initial deposit of \$12 million from Connecticut and New Jersey as an incentive for South Carolina's membership in the Atlantic Compact. During the fiscal year, the Board approved disbursements of \$2.6 million toward various projects including improvements to law enforcement facilities, the detention center, fire stations, and the water system.

Calculating rebates due to South Carolina customers: For the fourth year, the RWDP worked closely with the Office of State Treasurer to calculate disposal rebates due to South Carolina customers of the Barnwell site. State law directs that South Carolina generators be eligible to receive rebates of 33.3 percent of any disposal fees paid, exclusive of certain taxes and surcharges that are included in the disposal fees.

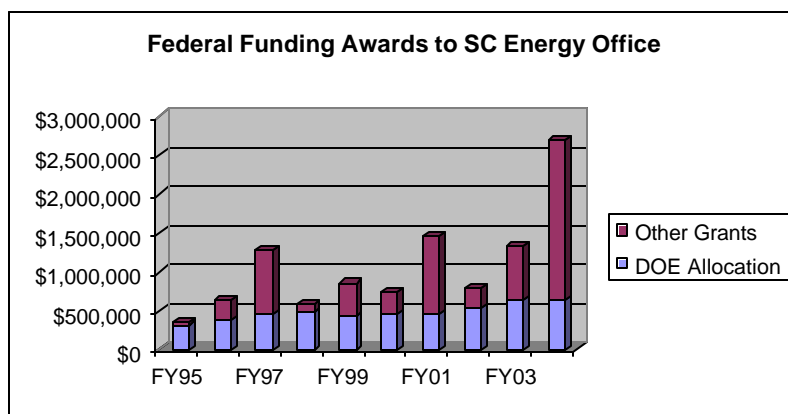
For FY04, thirteen South Carolina generators requested disposal rebates totaling \$347,772. The RWDP provided all generators notices regarding the availability of rebates, collected the rebate requests, deducted the excluded taxes and fees from the disposal fees, and provided a report to the Office of State Treasurer for issuance of the rebate funds.

Supporting the Atlantic Compact Commission and the Governor's Nuclear Advisory Council: The RWDP provided technical support to South Carolina's Commissioners on the Atlantic Compact Commission and maintained close communications with the Compact staff. The RWDP also provided staff support for the Governor's Nuclear Advisory Council, which met four times in FY04.

F. SC Energy Office Funding and Administration

The SCEO, through its strategic plan and input from staff and customers, has improved processes within the office to better serve its employees and the public.

Federal Funding: In addition to its \$641,000 formula allocation from the US Department of Energy (DOE) during the fiscal year, the SCEO submitted successful proposals for twelve projects totaling \$2,046,399 in competitive funding from DOE. In the category of DOE Special Projects, South Carolina received 20 percent of the grants awarded in the 11-state DOE Southeast Region. Since 1995, SCEO has received over \$10 million in federal funds through both allocations and special projects funding.



Strategic Planning: Staff updated the SCEO Strategic Action Plan to include US Department of Energy State Energy Program activities, Radioactive Waste Disposal Program and Internal Office Activities. The annual State Energy Program Plan was developed and submitted to DOE, as required.

Employee Development: Management followed up last year's Employee Well-Being survey by once again using a workplace assessment to allow staff to rate the organization's effectiveness in 22 areas ranging from acknowledgement to worth. Management used the FY03 assessment to make improvements in the areas of recognition and dialogue. The FY03 data is being used as a baseline to compare results from the FY04 surveys, and management is using the opportunities for improvement to provide enhancements to the office environment.

All Energy Office staff attended a Myers-Briggs Type Indicator (MBTI) in the Workplace seminar. Staff took the MBTI assessment, learned what their type and personality preferences were, and received an overview of how different types interact in the workplace.

A cross-functional team from the Energy Office attended the Department of Public Safety's Grants Writing seminar in January. In addition, a member of the management team was selected to participate in the nationally accredited Certified Public Manager Program that is run by the Budget and Control Board's Office of Human Resources.

Dashboard Measures: SCEO created a metric process whereby savings can be tracked and measured over time for past, present, and future SCEO projects. As displayed below, life cycle savings for all public sector projects through FY04 totaled over \$58 million.

Total Public Facility Energy Savings From SCEO Activities	
State Government	\$34,642,710
School Districts	\$17,870,578
Local Governments	\$6,054,319
Total	\$58,567,608